

Clinical case report

Comaneci 17

By: Prof. Pierre Goffette

Head of Department of Interventional Radiology and Therapeutic Neuroradiology
 UCL St. Luc Hospital, Brussels, Belgium

Procedure date: 09 May 2018

Case description & treatment plan

A 58-year-old female presented with a SAH due to a ruptured aneurysm located on the proximal P1 segment of the left Posterior Cerebral Artery (Fig. 1a). The aneurysm neck diameter was estimated at 3.9mm.

Considering the diameter of the basilar and posterior cerebral arteries (Fig. 1b), the Comaneci 17 was chosen to support the coiling procedure.

Access

Access was achieved with a 6F ENVOY DA catheter (Cerenovus, USA) positioned in the right vertebral artery. A Headway 17 microcatheter (Microvention, USA) was delivered in the aneurysm sac. A second Headway 17 intended for carrying the Comaneci 17 device was navigated into the Left PCA subsequently.

Treatment

Before placing the coils, the Comaneci was inflated to cover the aneurysm neck and remained inflated during the complete coiling process (Fig 2a & 2b). For framing, 5 Cosmos coils (Microvention, USA) were used.



Figure 1a

Figure 1b



Figure 2a

Figure 2b

Treatment – finishing coils

To ensure complete aneurysm filling the Comaneci device diameter was slightly and progressively reduced in order to reposition the microcatheter and precisely fill the remnant space with the last finishing coils (Fig 3). A total of 10 Hydrosoft coils (Microvention, USA) were used.

Procedure details

Total procedure time (puncture to closure device) was 122 minutes, of which 34 minutes for the diagnostic part and 88 minutes for the treatment itself. The total time Comaneci was in open position was 26 minutes. Anticoagulation administered to the patient: 250 mg aspirin and 6.000 units heparin.

Outcome

Control injections showed complete aneurysm filling without neck remnant (Fig. 4 Comaneci deployed, Fig. 5 Comaneci removed). No traces of embolic material were found on the Comaneci device. No procedural complication occurred. At discharge, patient had a GCS of 15 and a mRS score of 0.



Figure 3



Figure 4



Figure 5

Opinion on the Comaneci 17 device

“Due to its adjustable diameter and excellent visibility, the Comaneci device allows a dynamic inflation level during the coiling procedure and the device position relative to the aneurysm neck is easily verified. The overinflation observed with balloon remodeling does not apply to this device as the handle allows precise & controlled in- and deflation. Persistent flow through the deployed device allows to keep the device open during the coiling process, to reduce the procedural time and the risk of thrombus formation provided that sufficient anticoagulation is administered.”